

B. Claims

Please cancel claim 11 without prejudice and amend claims 1-10, 12, 13 and 16 as follows. A complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

1. (Currently Amended) An image printing method for completing a print process of ~~each~~ a pixel by making a plurality of ~~main~~ scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~assigning, to a pixel of interest, a pattern used to determine which of the plurality of main~~ selecting specification information for specifying one or more scans [[is]] used to print one or more dots having a single size ~~to be printed for on~~ the pixel ~~of interest on the basis of a density level of the pixel;~~

assigning the selected specification information to the pixel; and

printing the one or more dots on the pixel ~~of interest~~ in the ~~main scan determined~~ one or more scans specified by the assigned ~~pattern~~ specification information,

wherein ~~the assigning step includes a step of selecting one pattern from a plurality of patterns corresponding to each of density levels on the basis of a density level of the pixel of interest and assigning the selected pattern to the pixel of interest~~ when the density level of the pixel is higher than a predetermined density level, the specification information specifying a combination of the scans used to print the dots is selected.

2. (Currently Amended) An image printing method for completing a print

process of ~~each~~ a pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

assigning, to ~~each~~ the pixel, ~~a pattern~~ specification information which specifies the number of one or more dots having a single size corresponding to a density level of the pixel and one or more scans used to print the one or more dots having a single size; and

printing the one or more dots to the pixel in the one or more scans specified by the assigned specification information,

wherein when the density level of the pixel is higher than a predetermined density level, the specification information specifying different scans used to print the dots is assigned to the pixel in the assigning step.

3. (Currently Amended) An image printing method for completing a print process of ~~each~~ a pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

assigning ~~a pattern,~~ to the pixel specification information used to ~~determine~~ specify which of the plurality of scans is used to print one dot or ~~more~~ each of dots having a single size to be printed for ~~each~~ the pixel, ~~to that pixel~~ on the basis of a density level of the pixel;

generating a print data corresponding to one or more dots to be printed in each scan of the print head on the basis of the ~~pattern~~ specification information assigned to the pixel; and

printing one or more dots on each to the pixel on the basis of the generated print data,

wherein when the density level of the pixel is a predetermined density level, in the assigning step, one set of specification information is selected from a plurality of sets of specification information specifying different combinations, respectively, as a combination of the scans used to print the predetermined number of dots, and the selected specification information is assigned to the pixel.

4. (Currently Amended) The method according to claim 1, wherein a plurality of ~~patterns~~ sets of specification information are prepared in correspondence with each of the density levels of the pixel, and in the selecting step, one of the plurality of ~~patterns~~ sets of specification information corresponding to ~~[[a]]~~ the density level of ~~[[a]]~~ the pixel of interest is selected randomly, ~~[[or]]~~ in a predetermined order, or according to a position of the pixel.

5. (Currently Amended) The method according to claim 1, wherein the plurality of ~~main~~ scans include both forward and backward scans of the print head, and a ~~pattern~~ the specification information corresponding to ~~[[a]]~~ the density level of ~~[[a]]~~ the pixel which requires to print two or more dots ~~is defined~~ specifies the scans used to print the dots so that dots to be printed are distributed to both the forward and backward scans.

6. (Currently Amended) The method according to claim 1, wherein the

plurality of scans include both forward and backward scans of the print head, and the ~~pattern is defined~~ specification information specifies the scans used to print the dots so that dots to be printed are distributed to one of the forward and backward scans.

7. (Currently Amended) The method according to claim ~~[[1]]~~ 3, wherein ~~[[the]]~~ a plurality of ~~patterns~~ sets of specification information corresponding to the predetermined density level are assigned to pixels so that ~~densities~~ the number of the one or more dots printed in forward ~~scans~~ scan become equal to ~~densities~~ the number of one or more dots printed in backward ~~scans~~ scan.

8. (Currently Amended) A print data generating method that generates a print data for completing a print process of ~~each~~ a pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~assigning a pattern, used to determine which of the plurality of main~~
selecting specification information for specifying one or more scans ~~[[is]]~~ used to print one or more dots having a single size ~~to be printed for each on the pixel, to that pixel on the~~
basis of a density level of the pixel;

assigning the selected specification information to the pixel; and

generating the print data corresponding to the one or more dots to be printed
in each scan of the print head on the basis of the ~~pattern~~ specification information assigned to the ~~each~~ pixel.

wherein when the density level of the pixel is higher than a predetermined density level, the specification information specifying a combination of the scans used to print the dots is selected.

9. (Currently Amended) A print data generating method that generates a print data for completing a print process of ~~each~~ a pixel by making a plurality of ~~main~~ scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

assigning[[,]] to [[a]] ~~the pixel of interest, a pattern specification~~ information used to determine which of the plurality of ~~main~~ scans is used to print one dot or ~~more~~ each of dots having a single size to be printed for the pixel ~~of interest~~ on the basis of a density level of the pixel; and

generating the print data corresponding to the one or more dots to be printed in each scan of the print head on the basis of the pattern specification information assigned to the pixel ~~of interest~~,

~~wherein the assigning step includes a step of selecting one pattern from a plurality of patterns corresponding to each of density levels in correspondence with a density level of the pixel of interest, and assigning the selected pattern to the pixel of interest~~ when the density level of the pixel is a predetermined density level, in the assigning step, one set of specification information is selected from a plurality of sets of specification information specifying different combinations, respectively, as a combination of the scans used to print the predetermined number of dots, and the selected specification

information is assigned to the pixel.

10. (Currently Amended) A print data generating method that generates a print data for completing a print process of ~~each~~ a pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

assigning, to ~~each~~ the pixel, a ~~pattern~~ specification information which specifies the number of one or more dots having a single size corresponding to a density level of the pixel and one or more scans used to print the one or more dots having a single size; and

generating the print data corresponding to the one or more dots to be printed in each scan of the print head on the basis of the ~~pattern~~ specification information assigned to the ~~each~~ pixel,

wherein when the density level of the pixel is higher than a predetermined density level, the specification information specifying different scans used to print the dots is assigned to the pixel in the assigning step.

11. (Cancelled)

12. (Currently Amended) An image recording apparatus for completing a print process of ~~each~~ a pixel by making a plurality of ~~main~~ scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a memory for storing a plurality of ~~patterns~~ sets of specification information, each of which specifies the number of one or more dots having a single size corresponding to a density level of ~~[[a]]~~ the pixel and one or more scans used to print the one or more dots having a single size;

assignment means for selecting a ~~pattern~~ one set of specification information corresponding to ~~[[a]]~~ the density level of ~~[[a]]~~ the pixel ~~of interest~~ from the plurality of ~~patterns~~ sets of specification information stored in said memory and assigning the selected ~~pattern~~ specification information to the pixel ~~of interest~~; and

printing control means for ~~printing~~ causing the print head to print the one or more dots on the pixel ~~of interest~~ by the ~~scan~~ one or more scans specified by the assigned ~~pattern~~ specification information.

wherein when the density level of the pixel is higher than a predetermined density level, the specification information specifying different scans used to print the dots is assigned to the pixel.

13. (Currently Amended) A computer program product recorded on a ~~storage~~ computer- readable medium for making a computer generate data to be used in a printer for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a code for assigning a pattern, used to determine which of the plurality of scans is used to print one or more dots having a single size to be printed for each pixel, to that pixel; and

a code for generating the data corresponding to the dots to be printed for respective scans of the print head on the basis of the assigned pattern.

14. (Previously Presented) The program product according to claim 13, wherein the code for assigning includes selecting one of patterns corresponding to a density level of a pixel of interest and assigning the selected one pattern to the pixel of interest.

15. (Previously Presented) The program product according to claim 13, wherein a plurality of patterns are prepared in correspondence with each of the density levels of the pixel, and in the selecting, one of the plurality of patterns corresponding to a density level of a pixel of interest is selected randomly or in a predetermined order.

16. (Currently Amended) A computer program product recorded on a ~~storage~~ computer-readable medium for making a computer generate data to be used in a printer for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a code for assigning, to each pixel, a pattern which specifies the number of one or more dots having a single size corresponding to a density level of the pixel and scans used to print the one or more dots having a single size; and

a code for generating the data corresponding to the dots to be printed for respective scans of the print head on the basis of the assigned pattern.